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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,645	06/30/2000	Brian M. Leitner	219.38119X00	9499
20457	7590	02/27/2006	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			STRANGE, AARON N	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/608,645		LEITNER ET AL.	
	Examiner		Art Unit	
	Aaron Strange		2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.
2. With regard to claims 19-21, Applicant's arguments are not persuasive for at least the reasons discussed in the Office action of 5/11/05 (¶3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-7 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al (US 6,453,360) in view of Filepp et al. (US 6,199,100).
5. In referring to claim 1 and 10, Muller shows a system for high performance network interface for receiving and transferring packets in conformance with a number of processing function to increase efficiently of packet handling. Muller shows:
 - o Request packet transmitted by the network interface (col. 53 lines 40-44, col. 54 lines 32-43).

- o Writing the packet sequence number (flow number) of the request packet to a location in a circular send queue (col. 56 lines 51-65) pointed to by the write pointer (fig. 9 916) and setting a valid bit (flow validity indicator and operational code, fig. 6b, 622-624, col. 44 lines 17-48)
- o Incrementing the write pointer if the packet is read request (col. 55 lines 39-41, col. 41 lines 51-63), or clearing a read indicator at the location in the queue if the packet is not a read request packet (col. 42 lines 1-15)
- o For every response packet received by the network interface (col. 41 lines 22-29).
- o Checking the packet sequence number (flow sequence number 522) of the response packet against the packet sequence number stored in at a location in the circular send queue point to by the read pointer of the circular send queue (col. 41 lines 56-col. 42 line 23).

Muller fails to specifically disclose that the valid bit is indicative of whether at least one response is expected.

Filepp teaches the use of a "response expected" bit that is indicative of whether at least one response is expected to a packet. This bit is set when a response to the current packet is expected and cleared when no response is expected (at least Col 29, Lines 14-16; Col 36, Lines 18-27; Col 39, Lines 10-25). This tells the switch whether a response is expected and causes it to act accordingly, depending on the message type and whether a response is expected. It may also inform a user that a packet is a response packet to an original request, since response packets will have the bit cleared.

This would have been an advantageous addition to the system taught by Muller since it would have allowed the packet processing devices to determine whether a response was expected to the packet being processed and act accordingly.

6. In referring to claim 2 and 11, the packet is dropped if the valid bit at the location in the queue is not set (col. 106 lines 5-35).

7. In referring to claim 3 and 12, Muller shows a response packet is accepted if the valid bit (flow validity indicator 520) at the location in the queue pointed to is set and the packet sequence number (flow sequence number 522) of the response packet is equal to or less than the packet sequence number written at the location and greater than the last acknowledged packet sequence number (col. 56 lines 42-55).

8. In referring to claim 4 and 13, Muller shows that if response packet is read response packet, it is accepted if the sequence number is equal to the packet sequence number written in the queue and the read indicator (SYN bit) is set (col. 42 lines 16-23).

9. In referring to claim 5 and 14, if the response packet is accepted, the valid bit (flow validity indicator, col. 44 lines 30-34) at the location in a queue is cleared and if the packet is a read response packet, the read pointer (506) is incremented (col. 43 lines 16-55).

Art Unit: 2153

10. In referring to claim 6 and 15, Muller show for every request packet received,
 - o If the request packet is a read request packet, then setting the read bit at the
locating in the queue pointed to by the write pointer (502) and incrementing the write
pointer (col. 43 lines 1-55).
 - o If the request packet is not a read request packet, then clearing the read bit at the
location in the circular receive queue pointed to by the write pointer (col. 42 lines 24-
35)
 - o Reading the packet sequence number (522) and the valid bit at a location pointed to
by the read pointer of the queue (fig. 5 col. 41 lines 45-55).
11. In referring to claim 7 and 16, Muller shows a response packet is transmitted if
the valid bit at the location pointed to is set (col. 43 lines 40-55).
12. Claims 19-21 rejected under 35 U.S.C. 102(e) as being anticipated by Dobecki
(US 6,611,879).
13. In referring to claim 19, Dobecki shows a network interface (fig. 7) comprising:
 - A transmitter (418)
 - A receiver (424)
 - A send queue context memory (312S, col. 17 lines 52-57).
 - A receive queue context memory (312R, col. 17 lines 52-58).

A send queue engine (ME 315: 428p) connected to the send queue (312S) context memory and the transmitter and the receiver (col. 16 lines 40- col. 17 line 2).

A received queue engine (ME 315: 428d) connected to the received queue (312R) context memory and the transmitter and the receiver (col. 16 lines 40- col. 17 line 2).

14. In referring to claim 20 and 21, the network interface further comprises of plurality of ports receiving data from a corresponding plurality of NGIO and further comprising a virtual interface architecture establishing communication with plurality of NGIO links (col. 9 lines 63- col. 10 line 5).

Allowable Subject Matter

15. Claims 8,9,17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

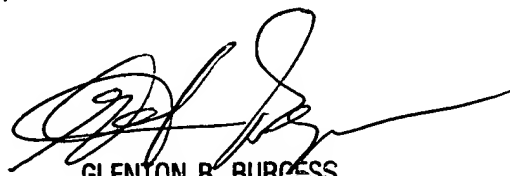
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

Art Unit: 2153

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
2/17/06



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